

# SECTION A. TECHNICAL NOTES

## INTRODUCTION

This report is based on final data from two Federal surveys. The first is the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) Completions Survey conducted annually by the National Center for Education Statistics (NCES). The second is the Survey of Earned Doctorates, conducted annually for the National Science Foundation (NSF) and five other Federal agencies. Each source is described in more detail in the following sections.

Data from the Completions Survey were used to report the number of bachelor's and master's degrees. The data on doctoral degrees in this report were derived from the Survey of Earned Doctorates, which surveys all individuals earning research doctorates, rather than from the Completions Survey, which surveys the institutions awarding the doctorates. The Survey of Earned Doctorate data were preferred because the data provided by individuals are more specific with respect to the field of specialization and are less prone to errors in data reporting and data entry than are the data provided in aggregates by institutions. Furthermore, doctorate data provide almost complete coverage for data by field and sex of individual recipients, whereas institutional data are subject to imputation for nonresponse. For a comparison of reporting on doctoral degrees in the Completions Survey and the Survey of Earned Doctorates, see National Science Foundation, *Science and Engineering Doctorates: 1960–91*, NSF 93-301, (Washington, DC, 1993).

## BACHELOR'S AND MASTER'S DEGREE DATA

In the Completions Survey, data are collected on all degrees conferred between July 1 and June 30 from the universe of accredited institutions of higher education in the 50 states, the District of Columbia, and the U.S. territories and outlying areas. The survey forms are filled out by institution administrative personnel. The data are collected according to sex of recipient and field of study. In 2001, the universe of institutions granting bachelor's or higher level degrees was 2,564. Each year between 1966 and 2001, institutional responses to these surveys exceeded 85 percent. Imputations for nonresponse were based on the previous year's response for an institution. For bachelor's degree data, 0.2 percent of degrees were

imputed and for master's degree data, 0.5 percent were imputed.

Because the data in this report include those for institutions in the U.S. territories, they may differ from numbers published by NCES that relate only to the 50 states and the District of Columbia and their field groupings. Data on degrees by field of study were collected according to the *Classification of Instructional Programs*, developed by NCES. (See section C for Current Classification Schemes.)

## DOCTORAL DEGREE DATA

In the Survey of Earned Doctorates, information is collected during the period of July 1 of one year to June 30 of the next from all persons who have fulfilled the requirements for a *research* doctorate. The survey is funded jointly by NSF and five federal agencies: the U.S. Department of Education, the National Institutes of Health, the National Endowment for the Humanities, the National Aeronautics and Space Administration, and the U.S. Department of Agriculture. The survey forms were sent to all accredited doctorate-granting institutions for distribution by the graduate deans to all research doctorate recipients as they complete degree requirements. Information collected in the survey comprises demographic data, such as the student's sex, citizenship, and racial/ethnic group; education history, including field of degree; sources of graduate student support; employment status during the year preceding receipt of the doctorate; postgraduation plans; and background on parents' education. Approximately 92–95 percent of the doctorate recipients complete and return the survey forms. For nonrespondents, commencement programs constituted a source of skeletal information that was added to the file. These variables were sex, field of study, institution, year of doctorate, and educational background. Consequently, for the variables used in this report, there is complete coverage. Data are updated annually from completed survey forms submitted belatedly by previous nonrespondents; therefore, data on doctorates are subject to revision and may differ very slightly from reports published earlier.

## FIELD CLASSIFICATION SCHEMES

It is difficult to establish a completely consistent series of degree data over a long period of time, given changes in field classifications and evolving fields of

study. Four field classification systems were used during the 1966–2001 period. (See section C, Classification of Programs, for current classification schemes.) Data for the earlier years are presented as consistently as possible with the current classification schemes using fields of study from the Completions Survey for bachelor’s and master’s degrees and from the Survey of Earned Doctorates for doctoral degrees used in this report.

Note that the data in this report are grouped into the science and engineering categories used by NSF. Data on engineering technology degrees and degrees in health/medical fields are not included in the science and engineering totals here. Therefore, data in this report may differ from those in reports published by the U.S. Department of Education.